

What is claimed is:

1. A method for controlling a drive unit including a drive unit of a motor vehicle having an internal combustion engine, said engine being equipped with a secondary air charger having a turbine, the method comprising the steps of:

5           blowing secondary air into an exhaust-gas system of said engine utilizing said secondary air charger;

             driving said secondary air charger via a pressure drop across an actuating element for adjusting an air supply to said engine; and,

10          driving said actuating element for adjusting said air supply to said engine which is corrected in dependence upon an air mass flow driving said turbine of said secondary air charger.

2. The method of claim 1, wherein said actuating element is so driven that the air mass flow, which is to be supplied to said engine via said actuating element, corresponds to the total air mass flow less the air mass flow through said turbine.

3. The method of claim 1, comprising the further step of adapting a value of the air mass flow through said turbine by comparing a measured air supply to said engine to a modeled air supply to said engine.

4. The method of claim 1, comprising the further step of measuring the air supply to said engine with at least one of an air mass sensor and a pressure sensor.

5. The method of claim 1, comprising the further step of

modeling the air supply to said engine in dependence upon the engine rpm and the position of said actuating element while considering the air mass flow through said turbine of said secondary air charger.

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6. The method of claim 3, comprising the further step of detecting a defective operation of said secondary air charger when the adapted air mass flow through said turbine of said secondary air charger lies outside of a pre-given tolerance band.

7. The method of claim 6, comprising the further step of selecting said tolerance band in such a manner that said tolerance band includes a modeled value for the air mass flow through said turbine of said secondary air charger.

8. The method of claim 1, comprising the further step of detecting a defective operation of said secondary air charger when a measured oxygen concentration in said exhaust-gas system deviates in magnitude by more than a pre-given threshold value from a pre-given oxygen concentration.

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9. The method of claim 1, comprising the further step of detecting a defective operation of said secondary air charger when a measured air/fuel mixture ratio in said exhaust-gas system deviates in magnitude by more than a pre-given threshold from a pre-given value.

10. An arrangement for controlling a drive unit including a drive unit of a motor vehicle having an internal combustion engine, said engine having an exhaust-gas system and being

equipped with a secondary air charger having a turbine, the  
5 arrangement comprising:

means for blowing secondary air into said exhaust-gas system  
of said engine utilizing said secondary air charger;

means for driving said secondary air charger via a pressure  
drop across an actuating element for adjusting an air supply to  
10 said engine; and,

control means for driving said actuating element for  
adjusting said air supply which is corrected in dependence upon  
an air mass flow driving said turbine of said secondary air  
charger.